

REMARKS

Claims 1 and 5-10 were presented for examination and were rejected. New claims 12-15 have been added, and are supported by the specification throughout and by claims 1 and 5-7. The amendment thus adds no new matter. Entry of the amendment and reconsideration in view of the following comments are respectfully requested.

The applicant appreciates the copies of initialed and signed Information Disclosure Statement previously submitted. The applicant also appreciates withdrawal by the Examiner of all outstanding rejections. New grounds of rejection have been entered, based on a single newly cited reference. The grounds for rejection have been carefully considered, and the following remarks are offered in response.

Rejections under 35 U.S.C. § 102

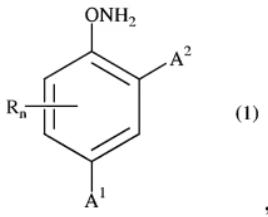
Claims 8-10 were rejected as allegedly anticipated by CAPlus English abstract DN 107:197769, Ishida, et al. (hereinafter "Ishida"). As alleged by the Examiner:

The reference discloses a process of using the compounds as aminating agents. See the abstract of JP 62070344, 1987. The compound RN 42865-91-8P reads on the compounds of the invention wherein n is 0 and A1 and A2, one is a nitro and the other is a CF₃. The reference clearly uses the compound for amination of other compounds in the presence of a base and a solvent and also the compound II is an compound that comprises an indole, meeting the limitations of claims 9 and 10.

The Applicants traverse this rejection.

To establish an anticipation rejection, the Office must show that a single reference expressly or inherently discloses every limitation of the claim. Ishida does not disclose all of the limitations of claim 8, which reads as follows:

A method to aminate a nitrogen in a recipient compound, which method comprises treating said recipient compound with a compound of formula (1):



wherein one of A¹ and A² is NO₂ and the other is CF₃, n=0-3, and R is halo, alkyl or CF₃;

under conditions wherein said amination can proceed.

Ishida generally indicates that its products are prepared "as aminating agents for the synthesis of drugs and agrochemicals." This does not anticipate a claim to the N-amination as claimed in claim 8, because it does not disclose use of the compounds for aminating a nitrogen of a recipient compound. Thus this rejection can be withdrawn.

The Office asserts that claim 10 is anticipated because the compound of formula II in Ishida "comprises an indole". First, formula II does not appear to comprise an indole. Moreover, the compound of formula II is not involved in the amination step; it is a precursor from which the compound of formula I is prepared "by reaction of imides II...with H₂NOH." Formula II does not represent 'a recipient compound' for the amination reaction mentioned in Ishida. Thus Ishida does not disclose amination of an indole nitrogen according to the method of claim 10.

With regard to the added method claims 12-15, which depend from claim 8, these require a compound wherein n is 1-3 or wherein n is 1, which is not disclosed by RN 42865-91-8P or the example described in the Ishida abstract. Likewise, claims 14-15 require a substituent R to be

present, and to be ortho to the $-\text{ONH}_2$ group (claim 14), and to be trifluoromethyl (claim 15). None of these additional limitations are disclosed by Ishida. Accordingly, the anticipation rejection of claims 8-10 should be withdrawn, and the rejection should not be applicable to new claims 12-15 for the same reasons plus the additional reasons presented above.

Rejections under 35 U.S.C. § 103

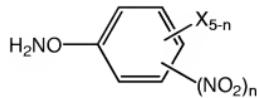
Claims 1 and 5-7 were rejected as allegedly obvious in view of Ishida. As alleged by the Office:

The specific species wherein the $R(n)$ is at least 1 is not shown. However, 1) a very small genus is taught and 2) applicants have not made and exemplified any compounds with n being at least 1 and up until 3...In view of the guidance given by the applicants and also in view of the small genus taught by the reference, one of skill in the art would be motivated to make the compounds as described in claims 1, 5-7. The use of the compounds is also the same as that of the prior art, provided [sic] added motivation for one skill in the art to make the compounds of the invention.

The Applicants traverse this rejection.

First, it is inappropriate to base any rejection in any part on the “guidance given by the applicants...” Here, that ‘guidance’ from the applicants was said to be part of the ‘motivation’ to make the compounds as described in claims 1 and 5-7; but of course the person of skill in the art could not have been motivated by the Applicants’ disclosure when the invention was made. Thus that cannot provide a motivation to make these compounds of the claims.

Second, the Office characterizes the genus in Ishida as ‘very small’. However, the reference provides this genus:



wherein $n = 1-3$, $X = H$, halo, alkyl, haloalkyl.

Thus the reference teaches a genus that has one, two or three nitro groups on the phenyl ring, and does not limit their positions relative to each other *or* relative to the H₂NO- group. Thus there are numerous possible mono-, di-, and tri-nitro compounds within the scope of the genus, even before the position and number of *other* substituents is taken into account. Ishida thus encompasses a considerable number of compounds when these additional variables (up to four additional substituents, with no limitation on their positions) are considered. The claims, on the other hand, require a single nitro group and a single trifluoromethyl group, in a specified orientation relative to each other and relative to the amino-oxy group; and the claims *further* require at least one added substituent R; and claims 6 and 7 define the location and nature of the additional substituent. Ishida does not disclose or suggest selecting CF₃ as an additional substituent, nor does Ishida disclose or suggest placement of an additional substituent *ortho* to the amino-oxy group. Thus based on the reference, there is no basis to select the claimed subgenus.

Third, as described in the specification, compounds like the examples discussed in Ishida, which have more than one nitro group, pose an explosion hazard. See, e.g., para. [0003]. The specific selection of compounds of the invention, having a CF₃ and one nitro group in the specified relative positions (either CF₃ or NO₂ must be *ortho* to the amino-oxy group, and the other one must be *para* to the amino-oxy group) solve this problem while providing effective amination reagents for N-aminations, as described throughout the specification. The invention provides motivation to select this type of compound, but Ishida does not appear to do so, since the examples mentioned in the Ishida abstract are compounds wherein n = 2, with the nitro groups placed at positions 2 and 4, or at positions 2 and 6. (From the abstract, it is unclear which dinitro isomer Ishida describes in its example: "Aqueous NaOH was added to a suspension containing II (AB = benzo, n = 2 at 2,4-position, X = H) and H₂NOH in aqueous MeOH unit stirring at 25o to give 87% I (n = 2 of 2,6-position, X = H)." So it appears to be either 2,4-dinitro or 2,6-dinitro.)

Fourth, the Applicants identified a specific problem of known aminating agents, an explosion hazard; and solved the problem by selecting a specific combination of two substituents that provides an aminating agent that is suitable for certain amination reactions and is more stable. The Applicants determined that dinitrophenoxy amines pose an explosion hazard, and that use of a

trifluoromethyl group combined with *one* nitro group on the phenyl ring provides a balance of suitable reactivity as an aminating agent for N-aminations, with improved safety characteristics. Ishida does not disclose or suggest the explosivity problem *or* the solution provided by the Applicants. The identification of this problem should be considered in the obviousness analysis, since it is part of the 'subject matter as a whole' inquiry (see MPEP 2142.02(III)).

Finally, the Applicants have not disclosed an example wherein n is 1, but they described a clear preference for such compounds, see e.g., para. [0012]-[0013]. The lack of a specific example of that aspect of the invention should not be determinative of obviousness, since no examples are required at all, and the existing examples satisfy the enablement standard. In particular, the identification of an ortho-trifluoromethyl group as the preferred additional substituent (claim 7) is not suggested by the reference in any way, but is clearly described by the Applicants as a preferred species for N-amination reactions. Accordingly, the rejections under 35 USC 103 should be withdrawn.

CONCLUSION

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the event the U.S. Patent and Trademark office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing docket no. 219002030100. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

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